

#### **PROVIDING**

- Geotechnical Engineering
- Construction Materials
   Engineering
- Environmental Engineering
- Drilling
   Services

December 17, 2001 Project No. 97664V3

Mr. Todd Croft Nevada Division of Environmental Protection 555 E. Washington, Suite 4300 Las Vegas, NV 89101-1049

RE: Results of monthly surface water sampling of the Las Vegas Wash at the Northshore Road Bridge.

Dear Mr. Croft:

Per your request, Geotechnical & Environmental Services, Inc. (GES) obtained a surface water sample from the Las Vegas Wash on November 27, 2001 near the Northshore Road Bridge. We sent this sample, under chain-of-custody protocol, to NEL Laboratories (NEL) for laboratory analysis of perchlorate. NEL's analysis revealed a perchlorate concentration of 810 micrograms per Liter ( $\mu$ g/L). The NEL report is included with this letter, along with Perchlorate Summary Tables for 2000 and 2001.

Our services were performed using that degree of care and skill ordinarily exercised under similar circumstances by reputable engineering firms in this or similar localities. No other warranty, either express or implied, is included or intended in this report. We appreciate this opportunity to provide our services. If you have any questions regarding these results, please feel free to call us at 365-1001.

Sincerely,

Geotechnical & Environmental Services, Inc.

Richard Cooke Staff Geologist Daniel C. Burns, C.E.M.\* #1692 (Expires 10/07/2003) Project Manager

\*"I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances."

mam

Enc: 2000 & 2001 Perchlorate Summary Tables

**NEL Analytical Report** 

Dist: 1 original mailed to addressee 1 faxed to addressee at 486-2863

Richard Cooke

cc: fax to Jeff Gibson, American Pacific Corporation

cc: mail to Kevin Mayer, USEPA SFD 72, 75 Hawthorne Street, San Francisco, CA 94105

cc: to project file 97664V3

7150 Placid Street Las Vegas, NV 89119 (702) 365-1001 • Fax (702) 341-7120

# Las Vegas Wash at Northshore Road Bridge 2000 Summary of Perchlorate Concentrations

Date Sampled	Perchlorate (μg/L)
1/27/00	569
2/28/00	720
3/29/00	870
4/27/00	750
5/30/00	740
6/28/00	410
7/27/00	650
8/28/00	510
9/27/00	430
10/26/00	340
11/29/00	370
12/26/00	320

# Las Vegas Wash at Northshore Road Bridge 2001 Summary of Perchlorate Concentrations

Date Sampled	Perchlorate (μg/L)
1/25/01	280
2/27/01	350
3/27/01	480
4/26/01	320
5/29/01	240
6/27/01	400
7/25/01	550
8/27/01	420
9/27/01	460
10/25/01	420
11/27/01	810

#### **NEL LABORATORIES**

Reno • Las Vegas Phoenix • Boise

Las Vegas Division 4208 Arcata Way, Suite A . Las Vegas, Nevada 89030 702-657-1010 • Fax: 702-657-1577 1-888-368-3282

CLIENT:

Geotechnical & Env. Serv.

7150 Placid

Las Vegas, NV 89119

ATTN:

Dan Burns

PROJECT NAME:

**FPF** 

PROJECT NUMBER: 97664 V3

NEL ORDER ID: L0111221

Attached are the analytical results for samples in support of the above referenced project.

Samples submitted for this project were not sampled by NEL Laboratories. Samples were received by NEL in good condition, under chain of custody on 11/27/01.

Should you have any questions or comments, please feel free to contact our Client Services department at (702) 657-1010.

Laboratory Manager

CERTIFICATIONS:

Las Vegas S. California Reno

Arizona California AZ0520 1707

Certified

AZ0518 2002

AZ0605 2264

US Army Corps

of Engineers

Certified

Las Vegas S. California Reno Idaho Certified

Montana Nevada L.A.C.S.D.

Certified NV033

Certified NV052

Certified

CA084 10228

**NEL LABORATORIES** 

CLIENT:

PROJECT #:

Geotechnical & Env. Serv.

PROJECT ID:

97664 V3

CLIENT ID:

North Shore Road Bridge

DATE SAMPLED: 11/27/01

NEL SAMPLE ID: L0111221-01

TEST:

Inorganic Non-Metals

MATRIX:

Aqueous

<u>PARAMETER</u>	RESULT	R. L.	D. F.	METHOD	UNITS ANALYZED
Perchlorate	810	. 80.	20	EPA 314	μg/L 12/14/01

**NEL LABORATORIES** 

CLIENT:

PROJECT ID:

FPF

Geotechnical & Env. Serv.

CLIENT ID: DATE SAMPLED: NA

Method Blank

97664 V3 PROJECT #:

NEL SAMPLE ID: 011214CLO4-BLK

TEST:

Non-Metals

REPORTING

RESULT ND

D. F. LIMIT

**EPA 314** 

UNITS ANALYZED μg/L

12/14/01

D.F. - Dilution Factor

ND - Not Detected

**PARAMETER** 

Perchlorate

This report shall not be reproduced except in full, without the written approval of the laboratory.

NEL LABORATORIES  Reno · Las Veges · Botse  Phoenix · Sacramento	USTODY F	2 2 2
Phoenix • Sacramento	Project Name: PDP	Project Number: 9766413
Las Vegas Division • 4208 Arcata Way, Suite A • Las Vegas, Nevada 89030	Purchase Order Number: 20 49	Sampled By: R. Cooke
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Company: GES Arenton: Dan Burns		
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The liability of NEL Laboratoriae Inc. is limited strictly to the price of samples received in good condition, NEL Is not responsible for loss, damage, resempting costs and/or qualitied data related to samples not received in good condition, including adequate sample volume and number of constitutes also constitutes a purchase order of NEL to produce of the CoC constitutes as produced in the constitutes acceptance of all REL Standard farms and constitutes acceptance of the CoC constitutes as produced or of NEL to produce ordered the constitutes acceptance of the CoC constitutes are measured in regular working days. Samples received at the time of sample sceept, NEL turnovard times are measured in regular working days. Samples received at the time of sample sceept, NEL turnovard times are measured in regular working days. Samples received at the time of sample sceept, NEL turnovard times are measured in regular working days. Samples received at the time of sample sceept, NEL turnovard times are measured in regular working days. Samples received at the time of samples confirmation transmitted to the fax number provided above. ORIGINAL

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702 667 1677 FAX NO.

DEC-14-S001 LKI 02:10 bW NEF TYBOKYLOKIES

### LETTER OF TRANSMITTAL

### GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

7150 Placid Street Las Vegas, Nevada 89119 (702) 365-1001 (702) 341-7120 (FAX)

TO:	NV Division of Environmen	tal Protection		Date:		December 17,	2001
	555 E. Washington, S	te 4300	PRO	DJECT:		Las Vegas Wasl	n at the
	Las Vegas, Nevada 891	01-1049				Northshore Road	
ATTN:	Mr. Todd Croft		GES PRO.	JECT #		97664V3	3
WF ARI	E FORWARDING THE ITE	MS LISTED RE	I OW VIA				
***							
	MESSENGER	PICK UP	X	U.S.	MAIL	<u> </u>	EXT DAY"
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THESE	ITEMS ARE SENT FOR:	REVIEW		OMMEN		_ APPROVAL	USE
		SIGN & R	ETURN		OTHER:		
REMAR	ake.						
TIGHT IN							
THIS M	IATERIAL SENT BY:	Daniel C. Burr	ns, C.E.M.				
	PLEASE	SIGN AND RET	TURN ONE	COPY O	F TRANS	MITTAL.	
RECEIV	/ED BY:	TIN	ΛE:			PATE:	
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UTHER	DISTRIBUTION:						
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If enclosures are not as noted, please notify us at once.